BSR WATER

Platform on Integrated Water Cooperation

Bringing together knowledge and innovation potential on a transnational basis

Union of the Baltic Cities Sustainable Cities Commission

MARIIA ANDREEVA

PLATFORM BSR WATER

Interreg Baltic Sea Region

EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND

IWAMA Interactive Water Management

Union of the Baltic Cities

– leading network of cities in the Baltic Sea Region
working together to foster sustainable, smart and safe cities

UBC | UNION OF THE BALTIC CITIES

Sustainable Cities Commission

Focus areas

- Sustainable urban mobility and urban planning
- Water management
- Energy management and energy efficiency
- Sustainability management
- Local climate work

BSR WATER platform project

UBC | UNION OF THE BALTIC CITIES

SUSTAINABLE CITIES COMMISSION

BSR WATER project aims

to enhance cross-sectoral cooperation in the water sector by providing a possibility for

- transnational experience exchange,
- sharing of good practices and solutions,
- developing comprehensive overview of the current and future policy contexts.

BSR WATER

Platform on Integrated Water Cooperation

Duration:
1 October 2018 to 31 March 2021

10 Partners

19 Associated partners

Funding:
Interreg BSR Programme 2014–2020

Budget:
EUR 1,133,440.40 million

9 Countries from Baltic Sea Region

www.bsrwater.eu

Partners

1. Union of the Baltic Cities (**UBC**), Sustainable Cities Commission, FI
2. Baltic Marine Environment Protection Commission – Helsinki Commission (**HELCOM**), FI
3. **Technical University Berlin**, DE
4. **University of Tartu**, EE
5. **Gdansk University of Technology**, PL
6. Environmental School of Finland (**SYKLI**), FI
7. **Riga** City Council, LV
8. City of **Helsinki**, FI
9. State Geological Unitary Company "**Mineral**", RU
10. State Autonomous Institution of the Kaliningrad region "**Environmental Center "ECAT-Kaliningrad**", RU

Contributing projects

IWAMA
smart wastewater management

BEST
better industrial sewage treatment

VillageWaters
wastewater management in village communities

ManureStandards
sustainable nutrient management

Reviving Baltic Resilience
preventing water contamination

iWater
integrated stormwater management

CliPLivE
climate change adaptation


Developing new ideas
by sharing experiences


BSR WATER
activities

Collecting and synthesizing good practices, solutions and expertise on water management

to make the results of transnational projects available in the region via an online platform Baltic Smart Water Hub, where different project results are displayed uniformly as developed tools, tested good practices and technical solutions

Facilitating regional policy dialog on sustainable water management

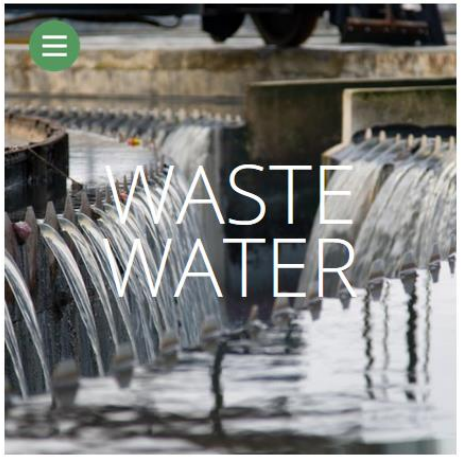
to develop HELCOM recommendations for sustainable utilization of nutrients and other valuable components contained by waste- and stormwaters and sludge


Improving links and integration among water sector experts in the region


BALTIC
SMART
WATER
HUB
Baltic Smart
Water Hub
www.balticwaterhub.net

BALTIC SMART WATER HUB

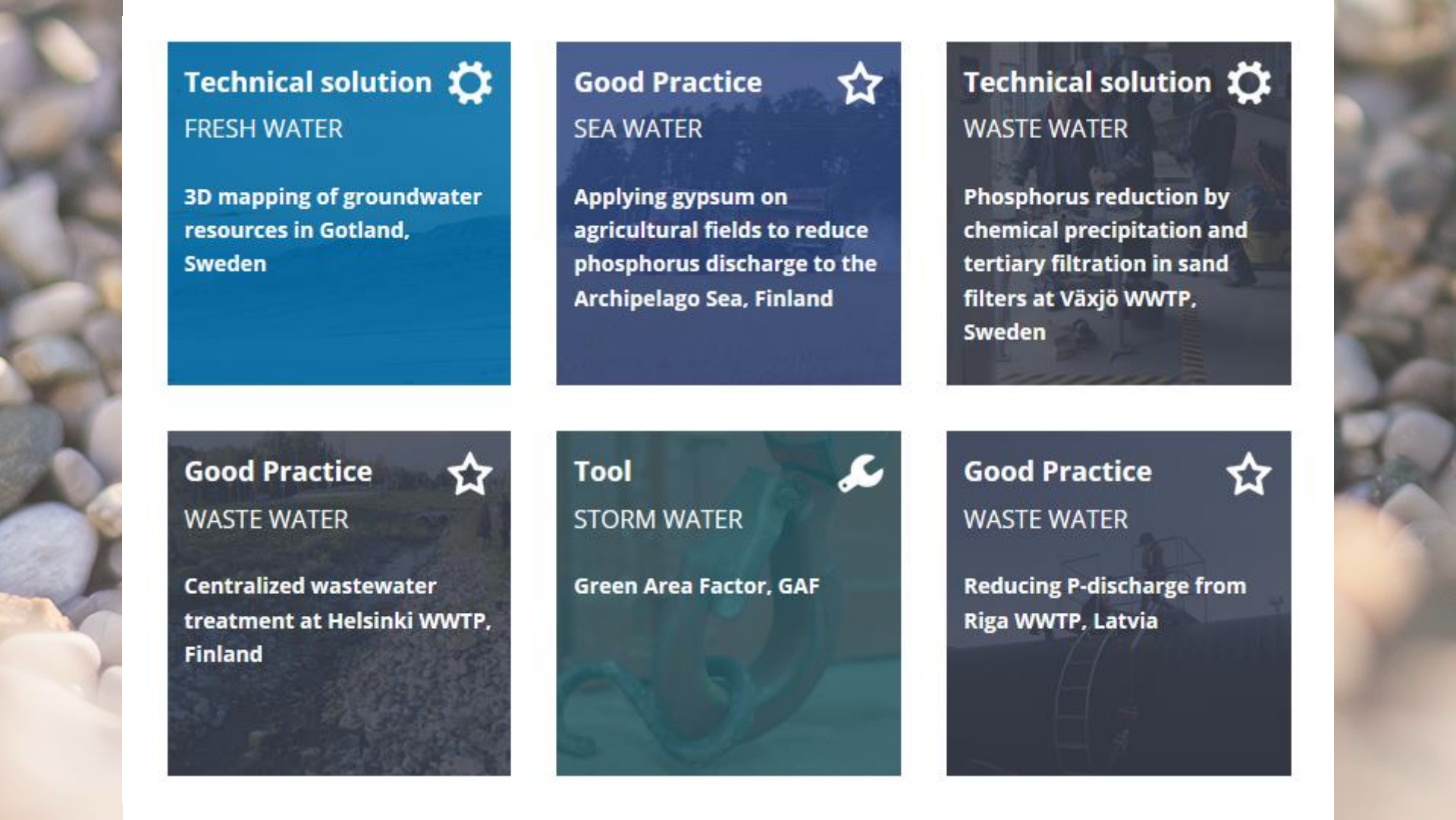
An online portal enabling exchange of practical experience and promotion of local achievements in the region



BALTIC SMART WATER HUB

BALTIC SMART WATER HUB

Showcasing most recent water sector good practices, technical solutions and tools in four water areas



Technical solution

FRESH WATER

3D mapping of groundwater resources in Gotland, Sweden

Good Practice

SEA WATER

Applying gypsum on agricultural fields to reduce phosphorus discharge to the Archipelago Sea, Finland

Technical solution

WASTE WATER

Phosphorus reduction by chemical precipitation and tertiary filtration in sand filters at Växjö WWTP, Sweden

Good Practice

WASTE WATER

Centralized wastewater treatment at Helsinki WWTP, Finland

Tool

STORM WATER

Green Area Factor, GAF

Good Practice

WASTE WATER

Reducing P-discharge from Riga WWTP, Latvia

Result:

In 2015, Marselisborg WWTP had a total energy production of 9,628 MWh/ year and an energy consumption of 6,311 MWh/year, equivalent to a net energy production of 153%. It means that the plant's power production was 53% higher than consumption. Surplus heat is directed towards Aarhus district heating.

In 2016, the plant produces 40% more electricity than it needs and 2,5 GW of heat for the district heating system without adding external organic waste or carbon. This excess energy is enough to serve the needs of the drinking water supply and wastewater treatment facilities in the region.

The energy production has been improved through implementation of new energy efficient biogas engine (CHP) resulting in an increase in electricity production of 1 GWh/year.

Optimization with SCADA has brought many benefits. The system produced a reduction in annual electricity consumption of around 700 000 kWh, corresponding to annual saving of 61 000€.

Replacement of blowers for the aeration system resulted in a reduction in power consumption of 300 000 kWh/year and annual savings of 26 000€. It also enables a CO2 reduction of 153 tons per year. Altogether, during 2016, energy saving measures at the plant led to an overall reduction in power consumption of approximately 25%. The total consumption was 4,2 GWh/year in 2005 while 3,1 GWh/year in 2016.

Cost details:

€2 703 000

- Online control for process optimization: 400 000€ - New aeration system: 250 000€ - New centrifuge for final dewatering: 216 000€; - Sludge liquor treatment: 400 000€ - Two new gas engines: 1 271 000€ - New gas engine and gas treatment - District heating system, construction: 166 000€

BALTIC SMART WATER HUB

We welcome you to submit the content to the Hub and promote your expertise in the region!

www.balticwaterhub.net

Thank you!

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